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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,848	08/31/2001	Anders Fahnoe Heie	NC25858	2176

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EXAMINER	
BELL, PAUL A	
ART UNIT	**PAPER NUMBER**
2675	14

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/943,848	HEIE, ANDERS FAHNOE	
	Examiner	Art Unit	
	PAUL A BELL	2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,13,15 and 18-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,13,15 and 18-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 and 13, 15, and 18-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 1 line 11, the phrase, "a **device** transmission signal" is not clear, is this the "an electrically-powered **device**" in line 1 or is it a "second device" different from "an electrically-powered device" for causing a transmission signal.

With regard to claim 13 line 11, the phrase, "a **device** transmission signal" is not clear, is this the "an improved portable electronic **device**" in line 1 or is it a "second device" different from "an improved portable device" for causing a transmission signal.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 13, 15, and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rader (5,867,140) in view of Beamish et al. (6,256,476).

With regard to claim 13, Rader teaches an improved portable electronic device for communicating with a communications network (figure 1 shows a cell phone which is used for communicating with a communications network *external to the portable electronic device*) comprising: a receiver for receiving information from the

communications network (figure 3, items 318 and 106); a liquid-crystal display (LCD) comprising a plurality of pixels for displaying images according to the information received from the communications network (figure 3, items 200 and 303); an LCD driver for receiving the received information and translating at least a portion of the information into instructions for selectively activating the pixels in order to produce an image (figure 3, item 311, 313 and 305), wherein the LCD driver determines if a power-conservation mode has been *automatically* selected and, if so, modifies the instructions accordingly (abstract, column 3, lines 30-52 the sleep mode will happen automatically if user does nothing).

Rader does not teach the newly added limitation "the power-conservation mode determined to be automatically selected if signals generated by the communication network upon detection of a device transmission signal lower than a predetermined threshold".

However Beamish et al. teaches a power management system for a mobile unit wherein the base station detects the quality of the signals transmitted by the mobile unit. Based on signal quality, the base station determines if the mobile unit should increase the transmission power level. If an increase in transmission power is indicated, the base station sends a signal to the mobile unit to cause the mobile unit to increase transmission power. However, to save battery power, the mobile unit only transmits at the increased power level for a limited amount of time, and then automatically returns to transmitting at the lower power level. Further, a slightly decreased high power level is established to allow the mobile unit to function when it is located away from the base

station, yet not near the outer transmission boundary (SEE Beamish abstract, column 2, lines1-11, figure 5, item 525). This clearly reads on the newly added limitation to claim 13.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Rader cell phone to have this feature as taught by Beamish et al. because Beamish et al. teaches how to further save battery power and also increase signal when only needed which make for a more reliable cell phone

With regard to claim 15 the combination of Rader and Beamish et al. teaches the device of claim 13, wherein the automatic selection of power-conservation mode is responsive to a low-battery indication (SEE Rader column 4, lines 6-14).

(column 3, lines 40-44 It is inherent that when the RF circuit detects incoming call, a change from no activity, from the communications network that it takes it out of the sleep mode or it would not work properly).

With regard to claim 18 the combination of Rader and Beamish et al. Rader teaches the device of claim 13, wherein the instruction modification performed if power-conservation mode has been selected includes omitting a predetermined number of pixel-activations (See Rader figure 3 items 305 and 303).

With regard to claim 19 the combination of Rader and Beamish et al. teaches the device of claim 18, wherein the number of omitted pixel-activations is determined as a first selected percentage of the total number of pixels to be charged during a first defined portion of the pixel-activation sequence (SEE Rader It is inherent that in figure 3 item 305 is a percentage of the total image item 303).

With regard to claim 20 the combination of Rader and Beamish et al. teaches the device of claim 19, wherein approximately fifty percent of the pixel-activations are omitted (SEE Rader figure 3, items 305 and 303 its approximately 50 %).

With regard to claim 21 the combination of Rader and Beamish et al. the device of claim 19, wherein a second selected percentage of the total number of pixels to be activated determines the omitted pixel-activations in a second defined portion of the pixel-activation sequence (SEE Rader When the cover is open all the pixels are activated).

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Rader (5,867,140) and Beamish et al. (6,256,467) as applied to claims 13, 15 and 18-21 above, and further in view of Reinhart (5,598,565).

With regard to claim 1, the combination of Rader and Beamish et al. most of the limitations of claim 1 except they do not directly teach, "analyzing the image data in a microprocessor of the LCD driver to determine the pixel-charging sequence required to produce the image associated with the image data; **automatically** entering power-conservation mode by modifying the pixel-activation sequence to reduce the number of pixels to which voltage is to be supplied; and displaying on the LCD an image created by the modified pixel-activation sequence"

However Reinhart teaches the above limitations (SEE Reinhart column 2, lines 1-22 and figure 2, items 195, 170 and 180, figure 3b, items 310 and 320).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the combination of Rader and Beamish et al.

display on their cell phone to have this feature as taught by Reinhart because Reinhardt teaches how to further save battery power .

With regard to claim 2, the combination of Rader/Beamish et al./Reinhardt teaches the method of claim 1, wherein the predetermined criteria for entering the power-conservation mode further comprises receipt of a user-entered instruction to enter power-conservation mode (SEE Reinhardt column 2, lines 16-21).

With regard to claim 3, the combination of Rader/Beamish et al./Reinhardt teaches the method of claim 1, wherein the predetermined criteria for entering the power conservation mode further comprises a low-power indication generated within the device (SEE Reinhardt column 3, lines 41-52).

With regard to claim 4, the combination of Rader/Beamish et al./Reinhardt teaches the method of claim 1, wherein the predetermined criteria for entering a power conservation mode further comprises a reduce-power signal (SEE Reinhardt column 4, lines 42-45 the "operating system" in CPU connected to a bus reads on the broad language "communication network").

With regard to claim 5, the combination of Rader/Beamish et al./Reinhardt teaches the method of claim 1, further comprising the steps of: determining that leaving the power-conservation mode is appropriate according to predetermined criteria; and leaving the power-conservation mode by returning to full power for all pixels (SEE Reinhardt column 5, lines 3-11).

With regard to claim 6, the combination of Rader/Beamish et al./Reinhardt teaches the method of claim 1, further comprising the step of selectively alternating the subset of no-power pixels (SEE Reinhardt column 2, lines 1-4).

With regard to claim 7, the combination of Rader/Beamish et al./Reinhardt teaches the method of claim 1, wherein the predetermined criteria for entering power-conservation mode includes an indication of the level of ambient light (SEE Reinhardt column 4, lines 54-60 inherent that the "visibility" in this section is related to ambient light).

With regard to claim 8, the combination of Rader/Beamish et al./ Reinhardt teaches the method of claim 1, wherein the predetermined criteria for entering power conservation mode includes an automatically-generated timing signal (SEE Reinhardt column 4, lines 29-42).

With regard to claim 9, the combination of Rader/Beamish et al./Reinhardt teaches the method of claim 1, wherein the subset of no-power pixels is selected according to the image being displayed (SEE Reinhardt column 2, lines 1-6 figure 3b).

Response to Arguments

6. Applicant's arguments with respect to claims 1-9 ,13, 15, and 18-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019.

If attempts to reach the examiner by telephone are unsuccessful the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377 can help with any inquiry of a general nature or relating to the status of this application.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or Faxed to: (703) 872-9306

Or Hand-delivered to: Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Paul Bell
Art unit 2675
June 1, 2004

CHANH NGUYEN
PRIMARY EXAMINER